

Managing Sustainable Data Infrastructures

The Gestalt of EOSDIS

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Guiding Principles for Partnership

- Established configuration of partners managed by a NASA Project: Earth Science Data and Information Systems Project at Goddard Space Flight Center
- Employ formal management processes; established approach for fiscal responsibility using
- De-centralize management authority. Partners manage themselves following NASA guidelines
- Continuous risk management across program
- Loosely coupled partnership, guided by a common purpose
- Use of standards to guide data structures and services
- Use Open Source to allow software sharing and provide a EOSDIS Code Collaboration site
- Enable collaboration through communicating through telecons, face-to-face meetings, robust Earthdata WIKI and the Earthdata Code Collaborative
- Use metrics to evaluate performance
- Collaborate on development of structural elements of the system, e.g. metadata model, user support services
- Promote usage and adoption of high-utility tools across all elements
- Foster and enable common user interfaces and experiences across the system
- Plan for continuous improvement

Power of Partnerships

| Partners | Collaboration | Super Power |
|---|--|---|
| Earth Observatory | Worldview Event Browser | Event database (Eonet) |
| Alaska Satellite Facility | Cloud storage prototypes | Cloud storage experience |
| NOAA, USGS | Big Earth Data Initiative | Common Framework for Earth Observation Data |
| GES DISC | Giovanni in the cloud | Web analysis platform with broad user base |
| J. Schnase | Climate Analytics as a Service | Earth science analytics expertise |
| International agencies | Common Metadata Repository collections | Metadata for >20,000 collections |
| OCIO Computer Services Service Organization | NASA-Compliant General Application Platform + cloud prototypes | NASA Authorization to Operate in Amazon cloud |
| European Space Agency | MERIS and Sentinel data distribution | Extended satellite coverage |

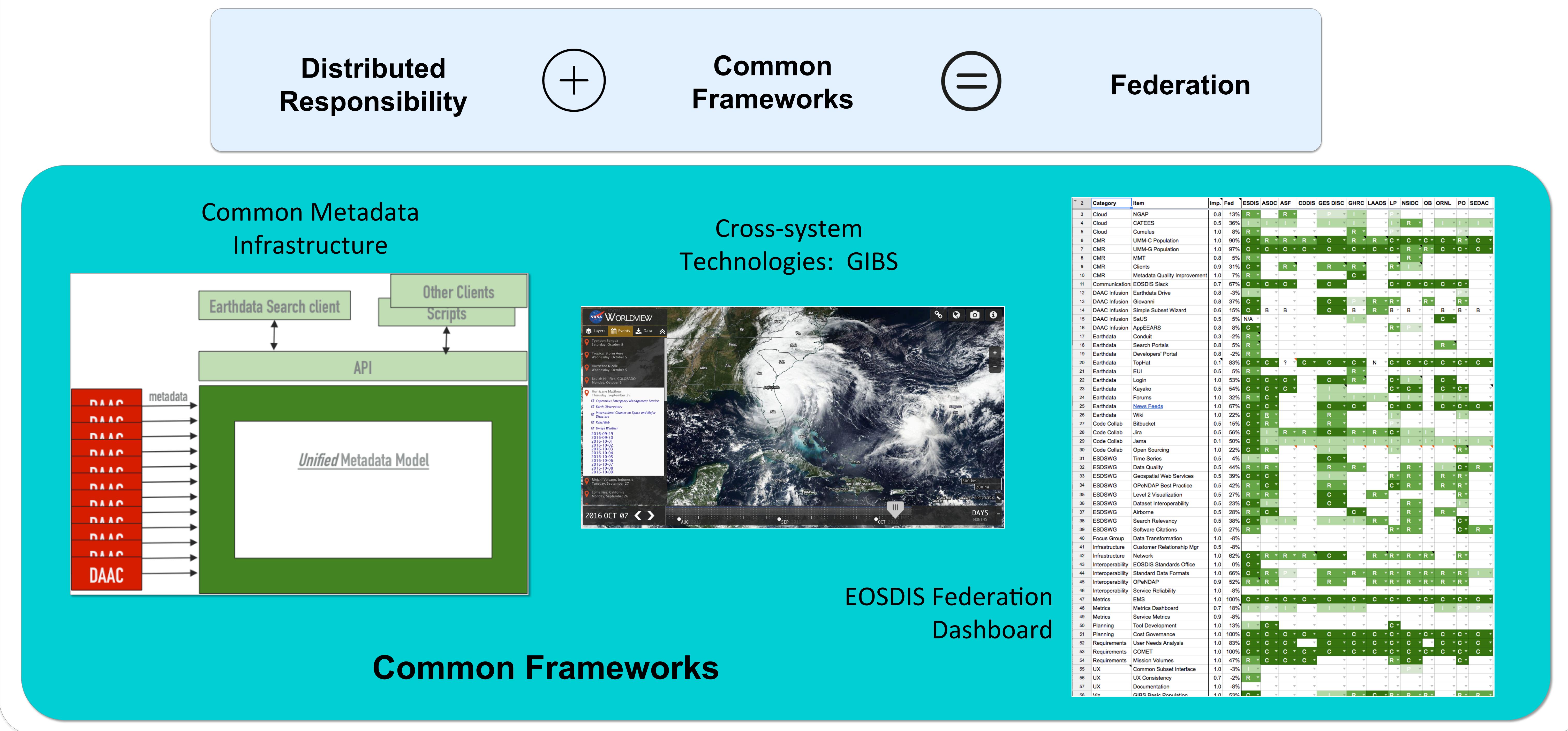
EOSDIS is greater than the sum of its parts.



EOSDIS is developed and sustained by NASA through many partnerships, directly through contracts and indirectly through common interfaces and infrastructures. All components in the infrastructure have responsibility for some part of the whole.



Solution to Building Sustainable Data Infrastructures



NASA's Earth Observing System Data and Information System (EOSDIS)

- Has provided public access to NASA Earth Science data since the 1990s
- Delivered over 1.5 Billion data products to over 2.9 Million science users from around the world has over 17 Petabytes of Earth science data archived
- Provides data services for NASA and related missions from orbiting, airborne, field campaign and related investigations
- Has a robust stewardship program for maintaining NASA's data assets

The centralized entrance point to the NASA Earth Science data collection can be found at : <http://earthdata.nasa.gov>